REMARKS/ARGUMENTS

Claims 1-22 are pending in the application.

The Applicants withdraw the subject application from the Appeal noticed August 9, 2007 and file the accompanying Request for Continued Examination. This Amendment after Final responds to the Final Action dated March 8, 2007.

In the Claims:

A. Apparatus Claims 1 -11

Independent Claim 1 stands rejected under 35 U.S.C. §102 (b), as anticipated by US 4,491,444 to Rumpp et al. The Applicants understand the Examiner to disagree with the claims' manner of claiming features of a tool (bit) with reference to characteristics of an unclaimed hammer drill and associated tool holder. Accordingly, independent claim 1 and associated dependent claims 2-11 are all amended to claim a "hammer drill" comprising a beatpiece, a tool holder and an associated "tool". As amended, independent Claim 1 requires:

> 1. A rotary hammer comprising:
> a beatpiece reciprocatable between a rearwardmost position and a forwardmost position;
> a tool holder including a locking body;
> a tool lockable in the tool holder and including:
> a forward end and a rearward end;
> a tip at the forward end; and
> a shank at the rearward end, the shank defining a closed groove for engagement by the locking body of the rotary hammer while permitting limited axial movement of the tool between a frontmost position in the tool holder and a backmost position in the tool holder, and wherein the closed groove has a forward end which is located at a distance from the rearward end of the tool so that, when the tool is located in the backmost position in the tool holder, the rearward end of the tool is maintained forwardly of the forwardmost position of the beatpiece.

As amended, independent claim 1 defines two possible extreme positions for the tool in the tool holder. Claim 1 requires that the closed groove in the tool shank is engageable by the locking body "while permitting limited axial movement of the tool between a frontmost position in the tool holder and a backmost position in the tool holder." Claim 1 also requires that "when the tool is located in the backmost position in the tool holder, the rearward end of the tool is maintained forwardly of the forwardmost position of the beatpiece." Rumpp '444 does not anticipate these limitations.

In Rumpp '444, Fig. 1 depicts a first condition of the Rumpp tool holder, wherein the tool shank 1 is not fixed against axial movement, and is arranged to perform percussive drilling (hammer-drilling). Rumpp '444 col. 3 lines 55-58 and col. 4 lines 32-37. Although Rumpp '444 does not describe the rearwardmost and forwardmost positions of anvil 2 or the frontmost and backmost positions of tool shank 1, it is obvious to one of ordinary skill in the art in view of Fig.1 that there exits a forward most position of anvil 2 and backmost position of shank 1 wherein the anvil 2 can strike the shank 1. Therefore, in the Fig. 1 condition, Rumpp '444 permits "limited axial movement of the tool between a frontmost position in the tool holder and a backmost position in the tool holder", but it does not satisfy the claim limitation that "when the tool is located in the backmost position in the tool holder, the rearward end of the tool is maintained forwardly of the forwardmost position of the beatpiece." Compare claim 1.

In contrast, Fig. 3 of Rumpp '444 depicts a second condition of the Rumpp retaining member 3 wherein the tool shank 1 is "secured against axial displacement." Rumpp '444 col. 3 lines 61-64. According to Rumpp '444 at col. 5 lines 25-30 "[i]n the position shown in FIG.3 the tool shank is held by the locking member 5,6 so that it cannot move in the axial direction. The axial play present in the percussion drilling condition shown in FIG. 1, has now been eliminated" (emphasis added). It explains that this immovable condition is achieved because locking member 6 "pushes the shank in the direction out of the retainer member 3 until the other locking member 5 is in contacting engagement at its front end with stop 3g and at its rear end with the rear shoulder of recess 1a." Rumpp '444 at col. 5 lines 19-22 (emphasis added).

Therefore, as immobilized in FIG. 3 the Rumpp '444 shank 1 does not satisfy the claim 1 limitation "permitting limited axial movement of the tool between a frontmost position in the tool holder and a backmost position in the tool holder." Furthermore, in the Fig. 3 position, the shank 1 does not satisfy the claim 1 limitation that "when the tool is located in the backmost position in the tool holder, the rearward end of the tool is maintained forwardly of the forwardmost position of the beatpiece" because in the Fig. 3 condition the shank 1 is held forward of the "backmost position." Applicants respectfully emphasize that "backmost position" is not dependent on the mode of operation of the hammer and/or tool holder, but is defined as the extreme position achievable by the tool when free to reciprocate in the tool holder. In the Rumpp FIG. 3 condition, shank 1 is not in the "backmost position" that is achievable in the FIG. 1 condition. Thus, the FIG. 3 condition of Rumpp '444 does not anticipate independent claim 1.

B. Apparatus Claims 12-18

Independent claim 12 stands rejected under 35 USC 103(a) as unpatentable over Rumpp '444. Dependent claims 13-18 stand rejected under 35 USC 103(a) as unpatentable over Rumpp '444 in view of either Obermeier '682 or Anjanappa '940. Independent claim 12 requires:

> 12 A tool suitable for being releasably locked in a rotary hammer having a tool holder including a locking body and a beatpiece capable of reciprocating between a rearwardmost position and a forwardmost position, the tool comprising:
> a forward end and a rearward end;
> a tip at the forward end; and
> a shank portion, the shank defining a closed groove for engagement by the locking body of the rotary hammer, and wherein the closed groove has a forward end, and the forward end is between 14 mm and 20 mm from the rearward end of the tool.

The Examiner acknowledges that Rumpp '444 does not disclose the distance between the forward end of the closed groove and the rearward end of the tool being between 14 mm and 20 mm. Action Para. 10, but insists that the claimed dimensions would have been an obvious design choice "because the Applicant has not disclosed that the 'distance between the forward end of the closed groove and the rearward end of the tool being 14mm and 20mm' provides an advantage, is used for a particular purpose, or solves a stated problem." *Id.*

Applicants reply that the advantage of the claimed dimensions are explained throughout the subject Specification. The problem to be solved is discussed in the application at the Background of the Invention at Para.s 4 and 5. There it is identified that in certain applications the use of a rotary hammer risks the inadvertent activation of the hammer mode while performing operations (drilling in ceramic materials and/or nut driving) wherein such hammering would damage one or both of the tool in the rotary hammer and/or the work piece. *Id.* The application goes on to solve the stated problem with a specialty tool bit wherein certain dimensions are chose so that said bit can not be struck by the hammering mechanism of the tool, regardless of the mode of operation selected for the drive mechanism or the tool bit holder. Application Para. 7. Furthermore, due to the substantially standardized dimensions of the commonly used SDS and SDS Max tool bits, and the rotary hammers that use them, the application states that the claimed dimensions provide the advantage that the rear end of such a shank can not be struck by the hammering mechanism of such a tool. Application Para. 9-14.

Nor is the construction of the claimed tool shank suggested by the cited Rumpp '444 reference. Rumpp recognizes that under certain conditions it is desirable to employ such a rotary rammer in a rotary drilling only mode. Rumpp '444 col 1 lines 1-35. Rumpp, however, is not concerned with inadvertent operation in hammer mode. *Compare* Application Para.s 4 and 5. Rather it is concerned that in certain drill only operations the axial play of the bit in the tool holder is undesirable. Rumpp '444 col. 1 lines 27-35. Therefore, Rumpp proposes an improved tool holder that in one condition can hold the bit within without allowing any axial play. Rumpp '444 col. 1 lines 40-44 and FIG.3. Moreover, the Rumpp tool holder can be arranged in a second condition wherein the tool holder holds the same tool bit with sufficient axial play to perform hammering or hammer-drilling operation. Rumpp '444 col. 1 lines 51-55 and FIG. 1.

Thus, to solve the problem it has identified, Rumpp proposes to modify the tool holder, not the tool shank. In contrast, the Applicant has solved his problem by modifying the tool shank, not the tool holder. Summarized thusly, it is clear that Rumpp '444 actually teaches away from the claimed invention.

It is thus demonstrated that the functionality and advantages of the claimed dimensions are taught by the Specification and the cited reference does not make those claimed dimensions obvious. Therefore, the Applicant submits that claim 12 and its dependent claims 13-18 are distinguished over Rumpp '444 and are allowable.

C. Apparatus Claims 19-21

Independent claim 19 stands rejected under 35 USC 103(a) as unpatentable over Rumpp '444 in view of Obermeier '682. Like independent claim 12, discussed above, independent Claim 19 includes a limitation on the maximum distance from the forward end (12a) of the closed groove (12) to the rear end (3) of the shank (2). Additionally, independent claim 19 includes a limitation requiring the shank to define "an axially extending driving groove extending to and open at the rearward end of the tool."

The Examiner admits that Rumpp '444 does not teach tool shanks comprising axially extending and open ended driving grooves. Action Para. 11. Therefore, he proposes a combination of Rumpp '444 and Obermeier '682.

Assuming for sake of argument that Obermeier '682 teaches the structures described by the Examiner, and that there is motive and suggestion to successfully combine the elements of the two cited references, then independent claim 19 still contains the limitation that "the closed groove have a forward end located between 14 mm and 20 mm from the rearward end of the tool", which dimensions are not taught by either Rumpp or Obermeier. Therefore, even assuming the motive or suggestion to combine Rumpp and Obermeier as proposed, the arguments for the novelty of independent claim 19 distill down to the same arguments made concerning independent claim 12, which are fully discussed above.

The Applicant believes he has demonstrated above that the dimensional limitations common to independent claims 12 and 19 are not obvious in view of the Rumpp '444 reference. Therefore, the Applicant submits that the same arguments applied *mutatis mutandis* to independent claim 19 establish the patentability of claim

19 and its dependent claims 20 and 21 over Rumpp '444 alone or in view of Obermeier '682.

D. Apparatus claim 22.

Independent claim 22 requires stands rejected under 35 USC 102(b) as anticipated by Rumpp '444. Action Para. 4. Claim 22is, however, very similar to independent claim 1, but defines the "backmost position" for the tool shank thusly:

> a shank at the rearward end, the shank defining a closed groove for engagement with the locking body of the tool holder, the axial length of the closed groove being greater than the axial dimension of the locking body for permitting a limited range of axial movement of the tool when locked in said tool holder between a frontmost position defined by engagement of a rearward end of said closed groove with a rearward engagement point on said locking body and a backmost position defined by engagement of a forward end of said closed groove with a forward engagement point on said locking body, and further wherein the distance from the forward end of said closed groove and the rearward end of the tool is less than the distance between the forwardmost position of the beatpiece and the forward engagement point on said locking body at all lock positions of said locking body. (emphasis added)

Claim 22 is not anticipated by Rumpp '444 for substantially the same reasons discussed in Section A above as regards claim 1. Rumpp '444 does not satisfy the limitation that "the distance from the forward end of said closed groove [defined by the shank] and the rearward end of the tool is less than the distance between the forwardmost position of the beatpiece and the forward engagement point on said locking body at all lock positions of said locking body", because in the Fig. 1 condition of Rumpp '444 the anvil 2 strikes the shank 1, which it would not be able to do, if the limitation were met. See Rumpp '444 col. 1 lines 13-26.

D. New Apparatus claim 23-25.

New claims 23 and 25 are submitted for consideration.

Respectfully submitted

Michael P. Leary

Michael P. Leary
Registration No. 41,144
Attorney for Applicant(s)
October 11, 2007

Michael Leary - TW199
The Black & Decker Corporation
701 East Joppa Road
Towson, Maryland 21286
Telephone: (410) 716-2773